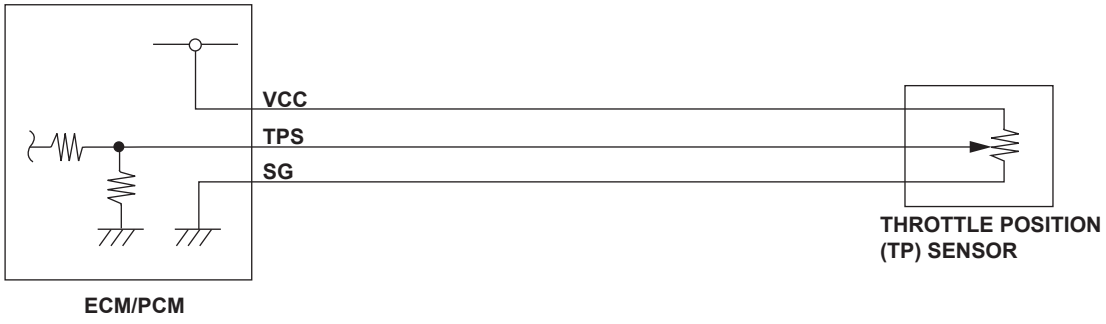
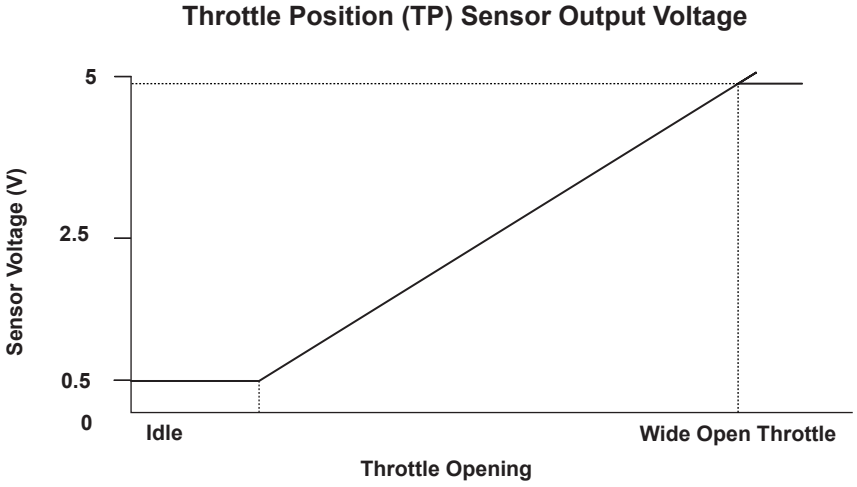
Advanced Diagnostics

DTC P0122: Throttle Position (TP) Sensor Circuit Low Voltage



P0122-9601



P0122-9672

General Description

The throttle position (TP) sensor is installed in the throttle body, and it detects the position of the throttle valve. This sensor includes a brush that moves with the throttle valve. The brush outputs voltage to the engine control module (ECM)/powertrain control module (PCM) that varies linearly with throttle position by sliding on a resistor. When accelerating or decelerating, the detection of the amount of intake airflow by the MAP sensor tends to be inaccurate due to rapid changes in throttle position. The TP sensor is used to correct the amount of airflow as it detects the throttle position. Also, the sensor is used for fuel cut-off operation to improve fuel economy and exhaust emissions when the throttle is fully closed during deceleration. The ECM/PCM monitors the throttle position (in degrees). If the output signal voltage from the TP sensor is excessively low, the ECM/PCM detects a malfunction and a DTC is stored.

Monitor Execution, Sequence, Duration, DTC Type

Execution	Continuous
Sequence	None
Duration	2 seconds or more
DTC Type	One drive cycle, MIL ON

Enable Conditions

Condition	
State of the engine	Running
No active DTCs	TP

Malfunction Threshold

The output voltage from the TP sensor is 0.1 V, 0.23 V*1 or less for at least 2 seconds.
*1: ULEV

Diagnosis Details

Conditions for illuminating the MIL
When a malfunction is detected, the MIL comes on and the DTC and the freeze frame data are stored in the ECM/PCM memory.

Conditions for clearing the MIL
The MIL will be cleared if the malfunction does not recur during three consecutive trips in which the diagnostic runs.
The MIL, the DTC, and the freeze frame data can be cleared by using the scan tool Clear command or by disconnecting the battery.